

Purandare Hysteropexy Technique in a 28-year-old Female with Pelvic Organ Prolapse Stage III: A Rare Case Report

I Gede Mega Putra^{1*}, Stella Kawilarang²

¹Obstetrician and Gynecologist, Staff of Division of Urogynecology and Reconstructive

²Resident of Obstetrics and Gynecology

Department of Obstetrics and Gynecology, Faculty of Medicine, Udayana University Sanglah General Hospital, Denpasar, Bali

*Corresponding Email: gedemegaputra@yahoo.co.id

Background: Pelvic organ prolapse is rarely found in reproductive-age women or in women with low parity. However, the finding has been further investigated to determine any risk factor involved, as well as to decide on the most appropriate management. This case report discusses the management of Purandare hysteropexy in a 28-year-old female with pelvic organ prolapse stage III. **Case:** A conservative surgical management on a reproductive-age woman with pelvic organ prolapse stage III, who wants to preserve her uterus. **Result:** The patient had an anatomical reconstruction. She had a better quality of life after the Purandare hysteropexy, and had less complaints. **Conclusion:** Purandare hysteropexy is one of the conservative surgical management on reproductive-age women with pelvic organ prolapse who still wants to conserve their uterus or reproductive organ.

Keywords: pelvic organ prolapse, reproductive-age women, Purandare, hysteropexy

DOI: 10.15562/bmj.v5i3.256

Cite This Article: Mega Putra., Kawilarang, S. 2016. Purandare Hysteropexy Technique in a 28-year-old Female with Pelvic Organ Prolapse Stage III. *Bali Medical Journal* 5(3). DOI:10.15562/bmj.v5i2.256

INTRODUCTION

Pelvic organ prolapse is the descend or prolapse of uterus/vault, bladder, or rectum through the urogenital hiatus that affect women of all ages.¹ Pelvic organ prolapse does not directly causing death, but it affects the quality of life.

Complaints may arise from the protruded mass causing an uncomfortable feeling, a urine incontinence, a fecal incontinence or even a sexual disfunction. These symptoms affect socially and financially. An epidemiology study of pelvic organ prolapse (POP) stated that the peak incidence of POP occurred in women at their sixth decade of life with more number of parity as their main risk factor.^{1,2}

POP is rarely found in a young age woman. Other intrinsic factor, such as the genetic or congenital bearing of the pelvic floor support, is one of the POP risk factor in young age woman.^{3,4}

Corresponding author:

I Gede Mega Putra

Address: Department of Obstetrics and Gynecology, Faculty of Medicine, Udayana University/Sanglah General Hospital, Denpasar, Bali.

Email: gedemegaputra@yahoo.co.id

A woman in her reproductive age may be highly concern about the possibility to be able to get pregnant. As a result, a conservation of the uterus, while correcting the POP, is one of the main objective for POP in young age women.

This article reports a POP case in a young age woman with single parity, who planned to get pregnant. Purandare hysteropexy corrected the POP anatomically and conserved her uterus. Purandare hysteropexy technique is one of a few POP managements which conserves uterus, provides a good prognosis, with minimal side effect and morbidity when compared to the other operative techniques.^{5,6}

CASE REPORT

A 28-year-old woman with one parity complained a mass protruding from her vagina for the last one year. She complained the protruded mass started to disturb her work and sexual life since one month ago. There was no pattern change in her defecation and micturition, no history of chronic disease such as chronic cough or constipation, and no history of the same complaint within her family. She worked as a construction worker since 5 months ago, 5 hours per day. She had a normal vaginal

delivery without any instrumentation in 2008. She denied any prolonged labor during her last delivery.

From the gynecology examination and Valsalva maneuver, a mass protruded through the hymen was seen from the urogenital hiatus. The mass consists of the anterior, the posterior wall of vagina, and the uterus. The POP Quantification examination result was: Aa +1, Ba +2, C +4, Gh 5, Pb 2, TVL 7, Ap -2, Bp -1, D +2. The Pap smear was negative for Intraepithelial Lesion or Malignancy (NILM). The patient was diagnosed with a cystocele grade III, uterine prolapse grade III, and rectocele grade II. Purandare hysteropexy was selected as a conservative surgical management for this patient. It

was done on April 13, 2016 at Karangasem General Hospital, Karangasem, Bali.

Purandare hysteropexy technique started by performing midline incision until fascia was exposed. Next, the fascia was dissected from the surrounding tissue, and a fascia band was made by making a 2 cm transversal incision in the middle of the fascia. Another fascia band was made on the contralateral side. Next step was opening the peritoneum. After evaluating the internal genital organ, the tip of the fascia band was inserted and passing through the peritoneal cavity. The contralateral fascia band was treated in the same manner. The operation continued with creating a bladder flap.

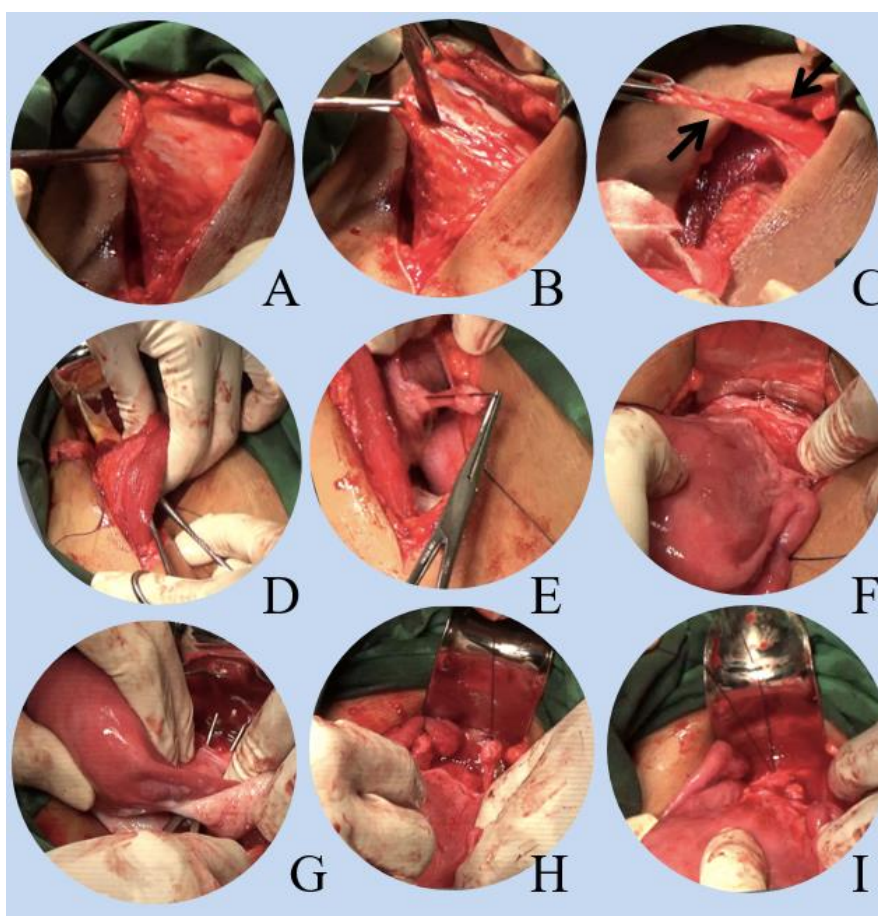


Figure 1. (A) Dissecting the fascia, (B) transverse incision in the middle of fascia, (C) the fascia band, (D) penetrating the muscle and peritoneum, (E) inserting the fascia band, (F) creating the bladder flap, (G) the avascular tunnel on broad ligament, (H) inserting the fascia band to the anterior of the uterus, (I) suturing the end of both fascia bands.

The surgery continued by creating an avascular tunnel on both side of broad ligament and pulling the end of fascia band towards the tunnel, to approximate the fascia in front of the uterus, approximately the same level of sacrouterine ligament. Suture the fascia band and combined the

end of both end of fascia band on the level of lower uterine segment with polyglactin 0.

Purandare hysteropexy technique ended by doing retro-peritoneal of the bladder flap, evaluating any bleeding and finally suturing each layer of the abdominal wall.

DISCUSSION

In this case report, POP was found in reproductive-age woman with one parity, which was a rare case and not fulfilling the general prevalence of POP. Pelvic organ prolapse was generally found in post menopause age, with high parity number.^{1,2} One of the main problems was to identify other risk factors that played a role in this patient, in order to prevent the recurrence of POP in this patient after the management was performed.

Various study stated that there are genetic and hereditary factor that causing the weakness of pelvic floor molecularly. There are approximately 10 genes that involve in the pathophysiology of POP, where mostly of those gene was in 9q21 chromosome.^{3,4} The combination of those genetic variability causes mutation in the collagen and matrix metalloproteinase, and causing deficiency of synthesis and/or degradation of collagen and elastin of pelvic floor structure.⁴

The second problem in this case was the option of management that can be done upon this patient. She still wants to have another pregnancy in the future, as the result the option of management that can be done was by conserving her uterus.

The management of POP generally divided into two, which are conservative and surgical, where the surgical also can be performed conservatively by preserving the uterus and also radically with hysterectomy^{5,6}. There are various conservative surgical techniques for correcting POP, the selected one was Purandare hysteropexy. This technique was using the native fascia of the patient itself as the media to support the uterus. As the result, any foreign body reaction that usually related with the usage of mesh can be avoided.⁷

Even though there are other conservative surgical technique for POP, Purandare hysteropexy technique is superior, especially for a young age woman who still wants to have another pregnancy. This technique has a minimal complication during and post-surgery, and has a good prognosis. As a result, the patient still has a chance to get pregnant.

SUMMARY

This study reports a 28-year-old woman with POP grade III, with a history of one parity. It is a rare finding and does not fit the POP epidemiology. There are various studies about the intrinsic factors of POP, such as genetic factor involved in the pathophysiology. However, the gene involved in the pathophysiology still cannot be determined.

A conservative surgical management was done for this patient, Purandare hysteropexy was selected to reconstruct the POP anatomically, with minimal complication during operation, short duration of operation, and also good result from the

anatomy and also functionally. A long time follow up is required to monitor the recurrence of POP in this patient. Informing the patient to avoid the POP recurrence risk factor is necessary. The patient should avoid vaginal delivery in her next pregnancy, and avoid heavy daily activities such as lifting heavy loads.

In the third month after the surgery, there was no POP recurrence. The patient had a normal micturition and defecation, and had less POP anatomical, functional and social complaints.

REFERENCES

1. Walters M.D., Karam M.M. Urogynecology and Reconstructive Pelvic Surgery 4th ed. 2015.
2. Guldberg R. Clinical epidemiological studies of women undergoing surgery for urogynaecological disorders. *Danish Medical Journal*. December 2013.
3. Constantini et al. Uterus Preservation in Surgical Correction of Urogenital Prolapse. *European Urology* 49 (2005) 642-649.
4. Jack G.S. Nikolova G. Vilain E. Raz S. Familial transmission of genitovaginal prolapse. *Int Urogynecol J* (2006) 17: 498-501
5. Single Surgical Procedures in Obstetrics and Gynaecology – 15. Uterus – Displacements. A Color Atlas of Cervicopexy (Purandare's) Nagrath A., Malhotra N., Seth S. Jaypee Brothers Medical Publishers Ltd. 2012
6. Kow N., Goldman H.B., Ridgeway B. Management Options for Women with Uterine Prolapse Interested in Uterine Preservation. *Curr Urol Rep*. 2013
7. Ward R.M, et al. Genetic Epidemiology of Pelvic Organ Prolapse: A Systematic Review. *Am J Obstet Gynecol*. 2014 October; 211(4): 326-335.
8. Allen-Brady K., et al. Significant Linkage Evidence for a Predisposition Gene for Pelvic Floor Disorders on Chromosome 9q21. *The American Journal of Human Genetics* 84, 678-682, May 15, 2009.
9. Cardozo L., Staskin D. Textbook of Female Urology and Urogynecology. Second edition. Chapter 75. Preservation of the prolapsed uterus.
10. Zigman J.S. Yazdany T. Uterine Conservation at the Time of Pelvic Organ Prolapse Treatment: the Options for Patients and Providers. *Curr Obstet Gynecol Rep*. March 2016.



This work is licensed under
a Creative Commons Attribution